

REMARKS

Reconsideration and allowance of this application are respectfully requested in light of the above amendments and the following remarks.

Claim 1 has been amended, and claims 13 and 14 have been newly added. Support for the amendments is provided for example in Fig. 1 and page 7, lines 14-15, of the instant specification.

Claims 1-3 and 7-9 were rejected, under 35 USC 103(a), as being unpatentable over Fukutani et al. (US 6,700,256) in view of Higuchi (US 6,339,273). Claim 4 was rejected, under 35 USC 103(a), as being unpatentable over Fukutani et al. (US 6,700,256) in view of Higuchi (US 6,339,273) and Shiraki et al. (US 6,465,927). Claim 5 was rejected, under 35 USC 103(a), as being unpatentable over Fukutani et al. (US 6,700,256) in view of Higuchi (US 6,339,273) and Kim et al. (US 2004/0032176). Claims 10 and 11 were rejected, under 35 USC 103(a), as being unpatentable over Fukutani et al. (US 6,700,256) in view of Higuchi (US 6,339,273) and Obara et al. (US 6,538,354). Claim 12 was rejected, under 35 USC 103(a), as being unpatentable over Fukutani et al. (US 6,700,256) in view of Higuchi (US 6,339,273) and Karidis (US 4,712,026). To the extent these rejections may be deemed applicable to the amended claims, the Applicants respectfully traverse based on the points set forth below.

Claim 1 now defines a disk apparatus having a rotor frame with a cylindrical portion, an inner peripheral plate adjoined to the cylindrical portion, a step portion adjoined to the inner peripheral plate, and an outer peripheral plate adjoined to the step portion. These features may be better understood in light of the exemplary, but non-limiting embodiment, of the claimed invention illustrated by the enclosed Exhibit. (References herein to the specification and

drawings are for illustrative purposes only and are not intended to limit the scope of the invention to the referenced embodiments.) As illustrated in the Exhibit, a rotor frame 221 has a cylindrical portion 223, an inner peripheral plate 1002 adjoined to cylindrical portion 223, a step portion 1004 adjoined to inner peripheral plate 1002, and an outer peripheral plate 1006 adjoined to step portion 1004.

Applicants' invention differs from the applied references, for example, in that the thickness of the inner peripheral plate (e.g., 1002) is thinner than that of the entire extent of the outer peripheral plate (e.g., 1006), as recited in claim 1. The claimed subject matter supports minimizing the height of a disk apparatus required to provide a stable platform for mounting a rotor shaft of the disk apparatus. More specifically, the inner peripheral plate should be thick enough to provide stability for the connected cylindrical portion, step portion, and outer peripheral portion, yet as thin as possible to reduce the height requirement that its thickness imposes on the disk apparatus. For an outer peripheral plate having a longitudinal length greater than that of the inner peripheral plate, as illustrated in the Exhibit, the outer peripheral plate has a greater amount of torque applied to its cantilevered free end for the same amount of force than does the inner peripheral plate. To avoid having this torque bend the free end of the outer peripheral plate, the outer peripheral plate is made thick enough to oppose forces tending to bend it. For these reasons, the outer peripheral portion of the rotor frame is thicker than the inner peripheral portion, as recited in claim 1.

The Applicants respectfully submit that the teachings of the applied references, taken alone or together, do not teach or suggest the claimed subject matter of a rotor frame having an

inner peripheral portion whose thickness is thinner than that of an entire extent of an outer peripheral portion.

Fukutani discloses, in Fig. 3, a rotor frame 31 having a cylindrical portion adjoined to an outer peripheral plate via a step portion. To the extent Fukutani's cylindrical portion may be deemed to include an inner peripheral plate, no part of the cylindrical portion/inner peripheral plate is thinner than the entire extent of the outer peripheral plate.

Higuchi apparently discloses a rotor frame having a cylindrical portion, an inner peripheral plate adjoined to the cylindrical portion, a step portion adjoined to the inner peripheral plate, and an outer peripheral plate adjoined to the step portion. However, Higuchi's inner peripheral plate is much thicker than the distal end of the outer peripheral plate, which is to be expected due to the very short lateral length of Higuchi's outer peripheral plate. Thus, Higuchi also does not disclose the claimed subject matter whereby the thickness of the inner peripheral plate (e.g., 1002) is thinner than that of the entire extent of the outer peripheral plate.

Although Shiraki, Kim, Obara, and Karidis were not applied in the rejection of claim 1, these references also do not disclose the distinguishing subject matter discussed above.

Accordingly, the Applicants submit that the applied references, considered individually or in combination, do not render obvious the subject matter now defined by claim 1. Independent claim 14 similarly recites the above-mentioned subject matter distinguishing claim 1 from the applied references. Therefore, the rejections applied to claims 4, 5, and 10-12 are obviated and allowance of claims 1 and 14 and all claims dependent therefrom is warranted.

In view of the above, it is submitted that this application is in condition for allowance and a notice to that effect is respectfully solicited.

If any issues remain which may best be resolved through a telephone communication, the Examiner is requested to telephone the undersigned at the local Washington, D.C. telephone number listed below.

Respectfully submitted,

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EXHIBIT

Fig. 1

OUTER PERIPHERAL PLATE 100A

224

221 226

210 211

242 243

240 241A

234

232 231

233B 233A

235 233

232A

222A

225 227

223 224

214 215

213 216

212

1002

1004

223A

223

223B

223C

223D

223E

223F

223G

223H

223I

223J

223K

223L

223M

223N

223O

223P

223Q

223R

223S

223T

223U

223V

223W

223X

223Y

223Z

223AA

223AB

223AC

223AD

223AE

223AF

223AG

223AH

223AI

223AJ

223AK

223AL

223AM

223AN

223AO

223AP

223AQ

223AR

223AS

223AT

223AU

223AV

223AW

223AX

223AY

223AZ

223BA

223BB

223BC

223BD

223BE

223BF

223BG

223BH

223BI

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223BL

223BM

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223BO

223BP

223BQ

223BR

223BS

223BT

223BU

223BV

223BW

223BX

223BY

223BZ

223CA

223CB

223CC

223CD

223CE

223CF

223CG

223CH

223CI

223CJ

223CK

223CL

223CM

223CN

223CO

223CP

223CQ

223CR

223CS

223CT

223CU

223CV

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223CX

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223HA

223HB

223HC

223HD

223HE

223HF

223HG

223HH

223HI

223HJ

223HK

223HL

223HM

223HN

223HO

223HP

223HQ

223HR

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